Name: Hw37\_TransversalSpecialAngles (Form A)

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Geometry, Period

Due Date: Thu, 16 Oct 2014

**Geometry**

**Homework**



**Identifying Special Angle Relationships**

***Instructions:*** *For each set below, use the same color for* ***special pairs of angles*** *(meaning both angles in a pair would have the same color). You will need 4 different colors (highlighters, pens, colored pencils, crayons, etc. are fine).*

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| 1. Color code the two sets of  **alternate interior angles.**  **http://3.bp.blogspot.com/_a1VB-fjgHlQ/TNg2sR2PotI/AAAAAAAAAGI/j35r2-QYa84/s1600/pict16B.gif**  What is the **relationship** of these angles? | 2. Color code the two sets of **alternate exterior angles.**  **http://3.bp.blogspot.com/_a1VB-fjgHlQ/TNg2sR2PotI/AAAAAAAAAGI/j35r2-QYa84/s1600/pict16B.gif**  What is the **relationship** of these angles? | 3. Color code the four sets of **corresponding angles.**  **http://3.bp.blogspot.com/_a1VB-fjgHlQ/TNg2sR2PotI/AAAAAAAAAGI/j35r2-QYa84/s1600/pict16B.gif**  What is the **relationship** of these angles? | 4. Use one color to mark all angles that **≅** **(are congruent to)** (use 2 tic marks)and another color for angles   (use 1 tic mark).  **http://3.bp.blogspot.com/_a1VB-fjgHlQ/TNg2sR2PotI/AAAAAAAAAGI/j35r2-QYa84/s1600/pict16B.gif** |

*Answer #5 & 6 just for* ***parallel lines*** *intersected by a* ***transversal.***

5.What types of angles are **congruent (≅)**?

6. Using the top intersection, list the **4 supplementary** **angles (=180°)**?

|  |  |  |  |  |  |  |
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| 7. Find m∠1 and m∠2. | | 8. Find x and y. | | | 9. Find m∠1 and m∠2. | |
| 10. What is the value of x? | | 11. Find the value of x. | | | 12. What is the measure of the larger angle? | |
| 13. If lines *a* and *b* in the figure below are parallel, and intersected by the transversal, c, which of the following  statements must be true?   1. *m*1 = *m*7 Justify your response. 2. *m*2 = *m*8 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. *m*4 + *m*5 = 180 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   1. I only \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. III only \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. I and II only \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. I, II, and III \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5. None of the above | | | | | | |
| 14. In the figure below, , and 9=100. Find 1.    ***a***  ***b*** | | | | | | |
| 15. | | | | | | |
| **G\_\_\_\_\_\_\_\_\_** | **R\_\_\_\_\_\_\_\_\_** (include angles) | | **A\_\_\_\_\_\_\_\_\_** (include formula) | **S\_\_\_\_\_\_\_**(show all work!) | | **P\_\_\_\_\_\_\_\_\_** (use words and images) |